

Work Order ID 101744-1

May-13-13 1:13:18 PM

101744

Page 1

Item ID: D3943-053

Revision ID:

Item Name: Chain Assembly

Start Date: 5/08/13 Start Qty: 10.00

Required Date: 5/24/13 Req'd Qty: 10.00

Reference:

Accept

N9000040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: MLJ

Date: 13-05-14

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Operation Description	Set Up/ Run Times	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
D3943 E							
100 Weld per dwg A/R S.S. rod Batch: <u>M 123357</u>	0.00						
100 Large Fab							
Large Fab	Memo ASSEMBLE WITH CHAIN BEFORE WELDING						
110 QC9- Inspect visual per QSI004- Fusion Welds	0.00						
110 QC							
Quality Control	Memo						
120 QC5- Inspect part completeness to step on W/O	0.00						
120 QC							
Quality Control	Memo						

B 13-5-27

3 B-05-27 DAS
09
2-63

3 B-05-27 DAS
09
2-63

Work Order ID 101744

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Item ID: D3943-053 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Chain Assembly
 Start Date: 5/08/13 Start Qty: 10.00 *10* Cust Item ID:
 Required Date: 5/24/13 Req'd Qty: 10.00 *10* Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130	Hybrid safety Yellow 4.3.5.12	0.00							
130									
Powdercoat	Memo	0.00							
Powder Coating	1- MASK CHAIN FROM THIS POINT ON PRIOR TO powdercoat AS PER DWG								

m 116329

2- POWDER COAT: 11:45
 Start Time: 11:45
 Oven Temperature: 400°F
 Finish Time: 12:15

3x mf 13/05/28

140	QC3- Inspect Part Finish	0.00							
140									
QC	Memo	0.00							
Quality Control									

3x of all 12/02/10

150	Identify as per dwg & Stock Location: w/o	0.00							
150									
Packaging	Memo	0.00							
Packaging									

101379

3 EL 13-5-29

160 QC 21-FINAL Inspection - W/o Release

13/05/30 MF 13-5-29

May-13-13 1:13:17 PM

Page 1

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP RevA: add DEO DD 09.11.18 verified by:JLM
10.02.22 verified by:EC IPP rev C 11.05.24 ECN 11-578 ec verified by:DD
REV:D 11.08.16 AS PER REV.E DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3954-5 Chain Lug		Manufactured	No			100	Each	7.0000	1	10			

1 Q 13-5-27

Manufactured	No
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
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100	100

100	Each	40.0000
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7
1 10
12 13-5-27

Location
ST077

Loc Qty

Loc Code

71876
91954
91958

40
1
9
30

7

ITEM No.	QTY -041	QTY -051	QTY -053	PART NUMBER	DESCRIPTION	PREFERRED SUPPLIER
1	X			D3943-041	GROUND HANDLING CRANK ASSEMBLY	
5	1	X		D3943-051	HANDLE ASSEMBLY	
6	1		X	D3943-053	CHAIN ASSEMBLY	
11		1		D3943-1	HANDLE	
12	1			D3943-3	HANDLE EXTENSION	M/F HANDLE FROM DIS-ASSEMBLED ITEM 39
13		1		D3943-5	PLATE	
14		2		D3943-7	STUD	
15			1	D3943-9	CHAIN	
16			1	D4405-1	EYE AND FORK SWIVEL	USE CHAIN SUPPLIED WITH ITEM 39
21	1			D2690-4	LANYARD	
22	1			D3585-1	SET SCREW	
23	1			D3949-041	REMOVE BEFORE FLIGHT FLAG	
24			1	D3954-5	CHAIN LUG	
25	1			D3954-7	RATCHET LUG	
26			1	D3954-9	GWT CHAIN PIN	
31	1			AN5-11A	BOLT	
32	1			AN980-516	WASHER	
33	1			MS21042L5	NUT	
39	1			8143919	LEVER CHAIN HOIST (POWER FIST)	PRINCESS AUTO / 4000 lbs CAPACITY
51	1			S-1475	SPRING	REID SUPPLY
52	1			3408A5G	BALL PLUNGER	McMASTER CARR
53	1			HX-15	SOCKET HEAD CAP SCREW 1/2-20 UNC X 0.75 LG	HASKINS
54	1			HX-16	SOCKET HEAD CAP SCREW 1/2-20 UNC X 1.0 LG	HASKINS

SUPPLY COPY
 RETURN TO
 ENGINEERING
 CONTROLLED COPY
 RETURN TO AMENDMENT
 WORK ORDER
 101744 M13
 13-05-14

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 2011-07-29
 MW

E	CHANGED D3945-3 MAT'L TO SS (B8-5); FINISH NOW "NONE" (A7-5); TAP DRILL FOR 1/4-20 UNF-2B WAS PILOT HOLE NOTE (B1-5). PER PAR11-113.	MB	11.07.27
D	SHT 1 PL, ITEMS 51-54 RENUMBERED SEE PREV. REV. FOR DETAILS, ITEM 16 ADDED (VIEWS UPDATED). SHT 2 ZN D3 FLAG RELOCATED. SHT 3 ZONE D3, Ø0.12 HOLE DELETED. (SEE NCR 11-495)	AJS	11.05.16
C	RMV FINISH -041 (ZN A8-2), ADD NEW FINISH -051/-053/-1/-3 (A8-3/-4/-5), ADD CALIBRATION (A8-2), (1) HX-16 WAS HX-15 (B3-1, C3-1), PAR 10-001	CP	10.01.26
B	SHT 1 PL, ITEM 31 WAS AN4-10A, ITEM 32 WAS AN960-416, ITEM 33 WAS MS21042-4, ITEM 43 WAS 0.75 LG. SHEETS 2 - 5 NOTES: FINISH FOR ALL COMPONENTS NOW YELLOW SPRAY PAINT.	AJS	09.10.15
A	NEW ISSUE	AJS	09.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	DSTON / AJS		
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.	N/A		
DATE	11.07.27		

DART AEROSPACE LTD
 HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3943
 TITLE GROSS WEIGHT TOW CRANK ASSY
 REV. E
 SHEET 1 OF 5
 SCALE NTS

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REMOVE AND RETAIN
RUBBER HAND GRIP

DISCARD PIN

RETAIN PIN

REMOVE &
DISCARD HOOK

8143919 LEVER CHAIN HOIST
(SHOWN PRIOR TO MODIFICATION)
(CHAIN SHOWN SHORTENED FOR CLARITY)

8143919
LEVER CHAIN HOIST

ANS-11A BOLT
AN950-516 WASHER
MS21042L5 NUT

3408A59
BALL PLUNGER

(CHAIN NOT SHOWN FOR CLARITY)

RE-INSTALL
RUBBER HAND-GRIP
HERE

D3943-3
HANDLE EXTENSION

D2690-4 LANYARD

D3949-041 FLAG

HX-16 S/H CAP SCREW

HX-15 S/H CAP SCREW
S-1475 SPRING

CALIBRATION TAG

D3585-1 SET SCREW

RE-INSTALL PIN

D3943-053 CHAIN ASSY

(CHAIN SHOWN SHORTENED FOR CLARITY)

D3943-041 GROUND HANDLING CRANK ASSEMBLY

DESIGN	DSTOW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ASS	DRAWING NO. D3943	REV. E
CHECKED		TITLE	SHEET 2 OF 5
MFG. APPR.		GROSS WEIGHT TOW CRANK ASSY	SCALE
APPROVED			NTS
DE APPR.	N/A		
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NOTES -041:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3943-041" USING FINE POINT PERMANENT INK MARKER
- 7) CALIBRATION TAG PER DART QSI 008 4.4 (ZN C1-2)

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2011-07-29

10174

D3943-1 HANDLE

2 PL

9.75

2.00

Ø0.31
THRU

D3943-7 STUD
2 PL

THREAD 1/2-20 UNC-2B
THRU



VIEW A-A
A5-3
(SCALE 2X) B5-3

9.38
REF

A B1-3

A B1-3

D3943-5 PLATE

D3943-051 HANDLE ASSEMBLY

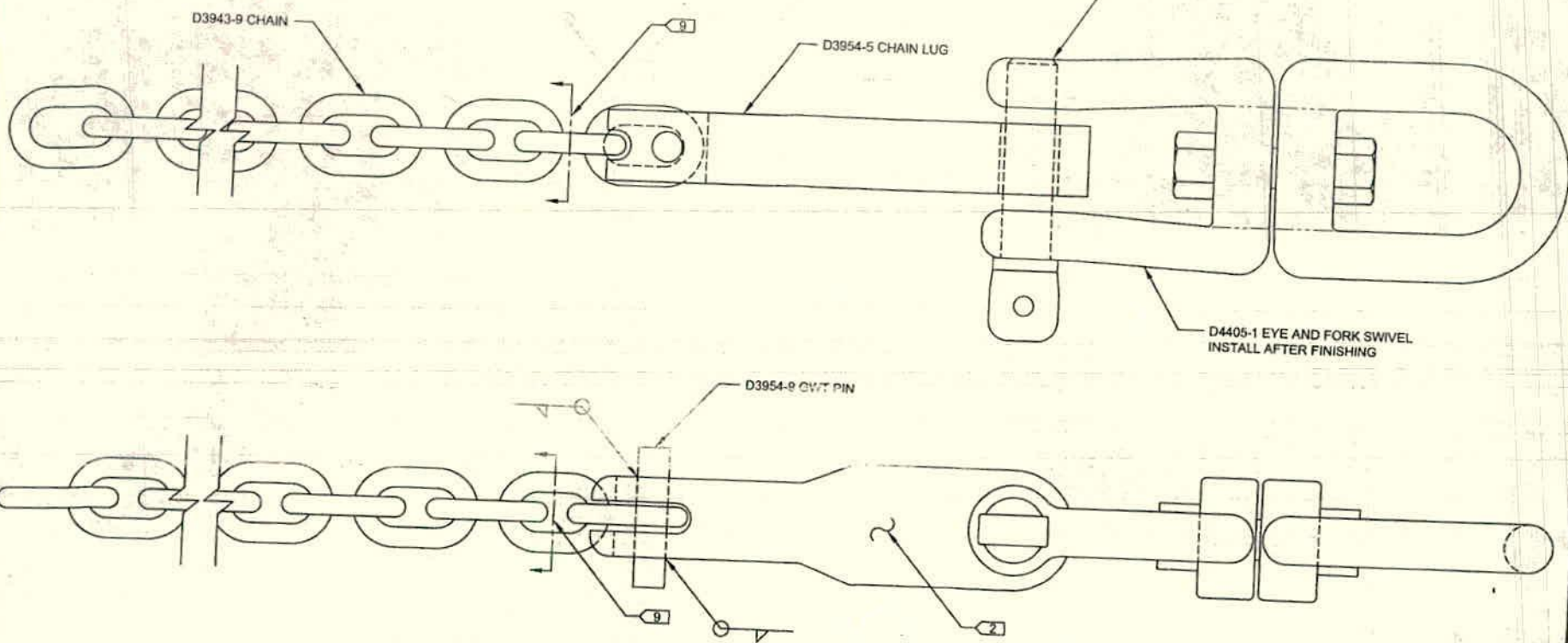
NOTES -051:

- 1) MATERIAL : N/A
- 2) FINISH: POWDER COAT HYBRID SAFETY YELLOW (4.3.5.12) PER DART QSI 005 4.3
- 3) TOLERANCES: X.XX DIMENSIONS +/- 0.06 ALL OTHERS PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) MASK ALL THREADS PRIOR TO FINISHING

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DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.		D3943	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY	NTS
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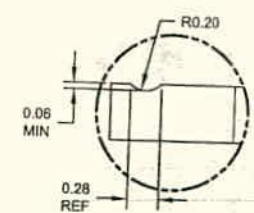
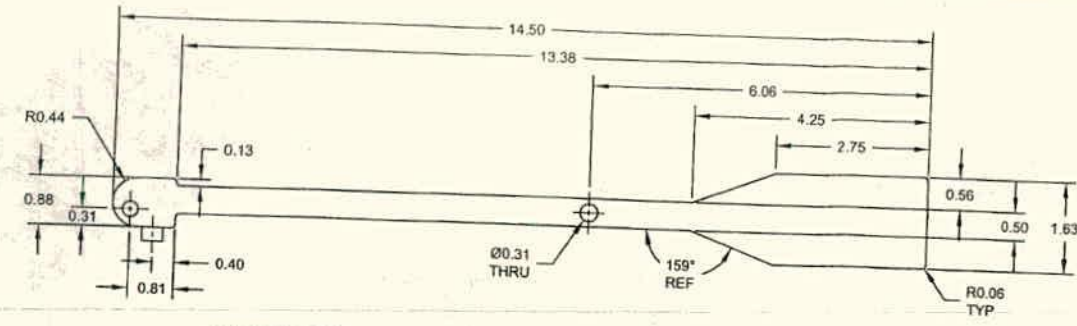
D3943-053 CHAIN ASSEMBLY

- NOTES -053:**
- 1) MATERIAL: N/A
 - 2) FINISH: POWDER COAT HYBRID SAFETY YELLOW (4.3.5.12) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: N/A
 - 8) WELD PER QSI 004
 - 9) MASK CHAIN FROM THIS POINT ON PRIOR TO FINISHING

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DRAWN		HAWKESBURY, ONTARIO, CANADA	
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MFG. APPR.		D3943	SHEET 4 OF 5
APPROVED	ML	TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY	NTS
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101744



D3943-3 HANDLE EXTENSION

NOTES:

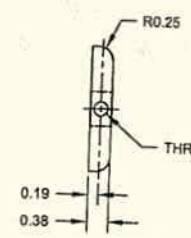
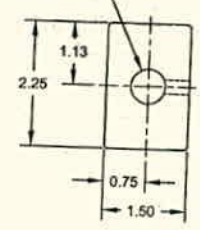
1) MATERIAL -3: AISI 304/316 STAINLESS STEEL SHEET
 ANNEALED 2B FINISH PER MIL-S-5059
 OR AMS 5513 (304) OR AMS 5524 (316)
 OR ASTM A240 OR ASME SA240
 REF DART SPEC M304S
 OR:
 AISI 303 STAINLESS STEEL SHEET
 ANNEALED 2B FINISH PER MIL-S-5059
 ASTM A240 OR ASME SA240
 REF DART SPEC M303S

-5: MILD STEEL, SHEET
 AISI 1010-1025 OR ASTM A36/A366/A1008
 OR CSA G40-21, 38W/44W/50W/60W/70W
 REF DART SPEC M1010-S
 OR:
 MILD STEEL, BAR
 AISI 1010-1025 OR ASTM A36/A366/A569/A570
 OR CSA G40-21, 38W/44W/50W/60W/70W
 REF DART SPEC M1010-B

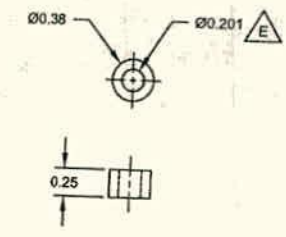
-7: MILD STEEL, ROUND BAR
 AISI 1018-1025
 PER MIL-S-7097
 REF DART SPEC M1018-R

- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A

THREAD $\frac{1}{8}$ -11 UNC-2B



D3943-5 PLATE



D3943-7 STUD
(SCALE 2X)

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CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.	WAF	D3943	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY	NTS
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